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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,741	04/06/2001	Vivek Amir Jairazbhoy	10541/277	6704

757 7590 07/12/2002

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EXAMINER
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DUONG, THO V

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 07/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/827,741

Applicant(s)

JAIRAZBHOY ET AL.

Examiner

Tho V Duong

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7-9, 12-15 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 10, 11 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 25 May 2002 is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4,6,10-11 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paterson (US 5,529,115) in view of Thomas O. Paine (US 3,603,382). Paterson discloses (figures 1 and 4) a heat pipe (10) comprising a container having a receptacle (13) for receiving an electronic device (12); the container having an inner wall (24) and an outer wall (14) defining a chamber that is partially filled with a liquid coolant (20) and capable of receiving a cooling conduit; a condenser plate (48) positioned within the container. Paterson does not disclose that a wick structure lining within an annular space between two coaxial conduits. Thomas discloses (figure 1-3 and column 4, lines 16-28) a heat pipe comprising a container having an outer wall (12) and an inner wall (12) receiving a cooling conduit; a wick structure (14) including a first wick structure (24) lining the inside of the outer wall (12); a second wick structure (20) lining the inside of the inner wall (10); a communicating wick structure (22) periodically connected the first and the second wick structure so that heat can be effectively transferred from the outer wall (12) to the inner wall (18) by evaporation at the outer wall and condensation at the inner wall. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Thomas's

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teaching in the cooling device of Paterson to effectively transfer heat from the outer wall to the inner wall by evaporation at the outer wall and condensation at the inner wall. As regards claim 4, the communicating wicks (24) are symmetrical. Therefore, if the heat applied to the outer wall right below to one of the communicating wicks, the opposite communicating wick is considered to be readable on the claimed limitation of flow divider.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kosson et al. (US 3,901,311) discloses a heat pipe that has a wick structure forming a hollow core in the middle.

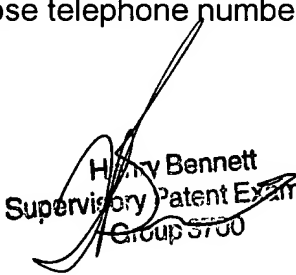
Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703)305-0768. The examiner can normally be reached on from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703)308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7764.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0861.

Tho Duong

July 2, 2002

  
Henry Bennett  
Supervisory Patent Examiner  
Group 3700